

1, 2, 3, 4
123,
4

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Understanding characteristics of Korean dance performance by image analysis

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가 .

가

가가 .

가

가

Keywords : Emotion recognition, Korean dance performance, qualitative/quantitative analysis, Neural Network

1.

가

가

[1]

[1]

가 , 3

가

. 4

4 가 (-happiness, -

sadness, -angry, -surprise)

, 가

. 5 4

6

2.

가

가

4 가

[1]

가

가

(: , , ,)

가

가

가

[1]

2

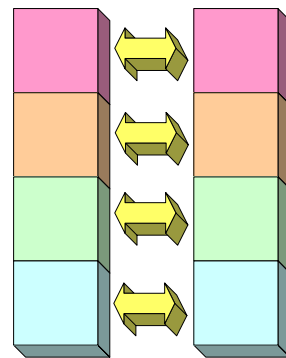
가

가

(, ,)

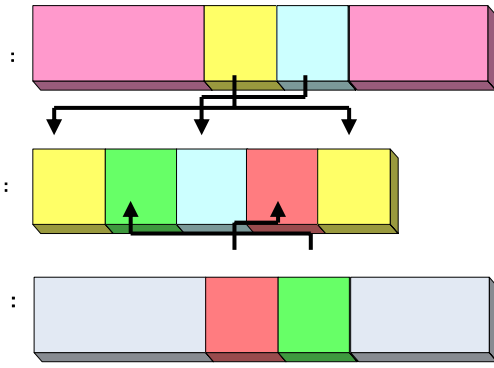
가

[10]



1.

. 2



2.

3.

3-1

가
(, ,)

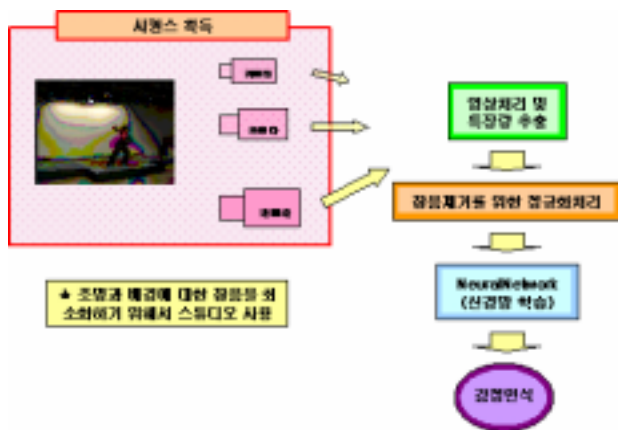
3

[4,5]

(3-3 .)
. 2

Outlier

가 (Neural Network)



3.

3-2

(, ,)

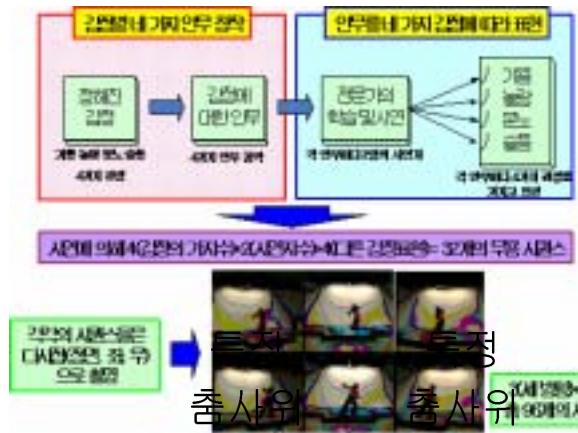
,) 가가
. 가 가
4 가 가

32 가 [2()*4()*4()]

4 가 (, ,)

96 [3()*32]

4



4.

3-3

[4,5]

[7,8] 5

2

가 ,
가 ,
7 가 가

21 가

1

가

3
3
2



5.

[4,5]

1.

	(R_x, R_y)
	(S_x, S_y)
	A
가	W
	N
	f_v
가	f_a

3-4

[2].

5 10

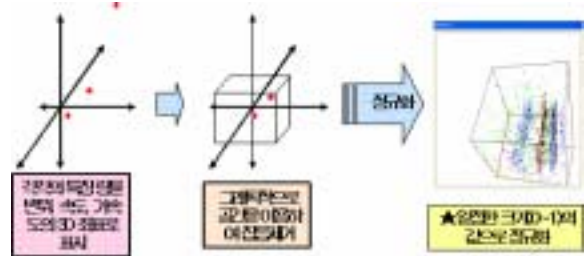
가

6 3

, 가

(
)
가 [3].
(0 ~ 1)

(Neural Network)



6. 3

3-5 Neural Network()

()

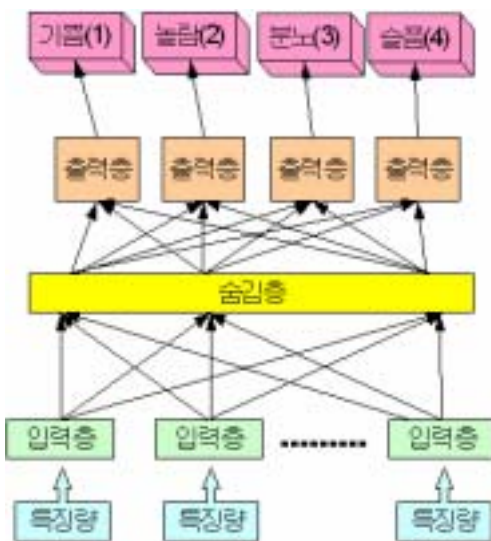
7

(Layer) 가

(Forward)

[6,9]

가



7. Neural Network()

4-2

4.

2

가

4-1

가

4

2.

	68%	60%	65%	78%
	74%	70%	68%	82%

()

5.

가 (90-

100%)

5-1

가

가

) * 100[%]

) -

, 가 가

가

[14]

) -

가

가



8.

(

8

가가

(1,3,5,7)

(2,4,6,8)

.)

[12,13]

() - 가
 , 가
 , 가
 가
 .[12]

가

9

5-2

1

2,000

가 , 10
 10,000
 가
 가

가

3

3.

	25.4%	51.6%	8%	15%
	43.8%	41.1%	6.9%	8%
	28.7%	55%	5.9%	10.4%

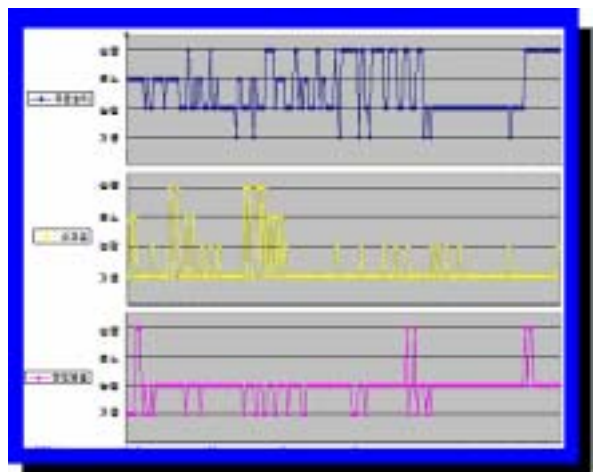
가

10,000

10

1,000

75-85[%]



9.

가

5.1

6.

가

가

가

() , 가

가

, 가

, 가

가 , ' , ' , ' , ' ,

7.

가 , 가 3, 4

2003 ~ 2005

가

가 ,

8.

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